MARYLAND'S CHILDREN AND THE ENVIRONMENT

FACT SHEET

A New Assessment of How the Environment Affects Children's Health in Maryland

The Maryland Department of Health and Mental Hygiene and the Department of the Environment have jointly issued the state's first systematic, comprehensive look at the relationship between the State's environment and the health of its children, using data collected over the past 10-to-15 years. Their findings are presented in a new report, *Maryland's Children and the Environment,* which draws upon statistics compiled routinely by multiple state agencies to examine recent trends across a broad range of environmental hazards and health outcomes that the public and policy makers care most about.

The report was funded in part by the U.S. Environmental Protection Agency and is available under "DHMH Reports" at: www.dhmh.state.md.us.

Maryland's Children and the Environment represents an important step in the State's ongoing efforts to identify and mitigate environmental factors that adversely affect children's health in communities around the State.

The report is modeled after a 2003 report by the U.S. Environmental Protection Agency, *America's Children and the Environment*. Maryland now joins a handful of states that have created their own state-wide reports based on the national model.

continued

Key Findings: Some Environmental Exposures Have Been Reduced, But Challenges Remain

Maryland has made **significant p**rogress in reducing environmental hazards associated with adverse health effects in children, particularly in two key areas:

(1) Exposure to outdoor air pollutants, as measured by the distribution of annual ozone concentration across the state, decreased from 1995-2006 (see fig. 1).

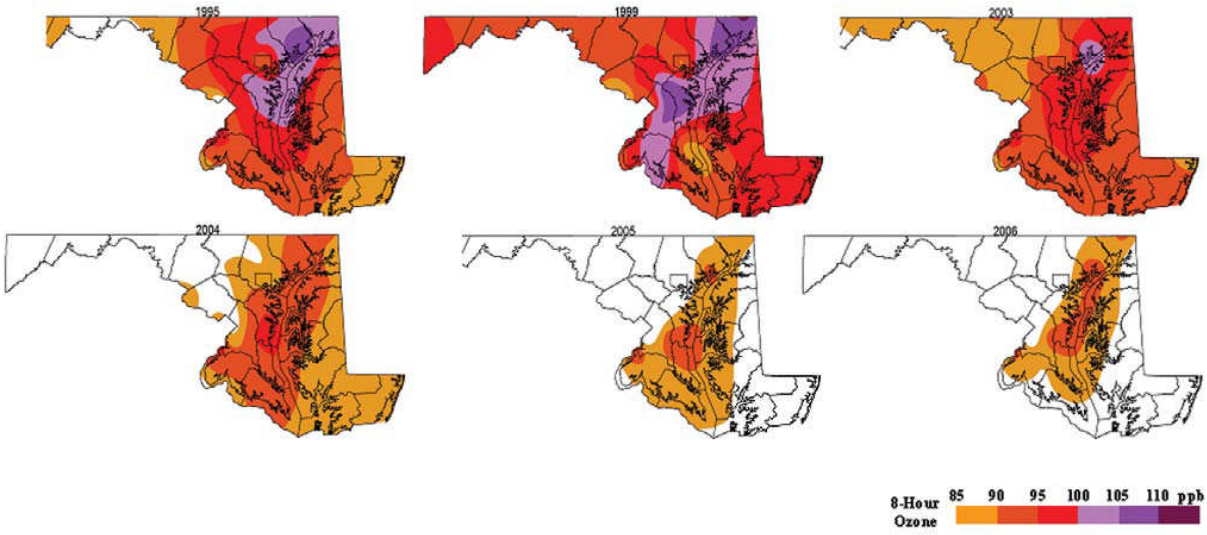

Figure 1. Distribution of annual ozone concentration in Maryland (map is for years 1995-2006).

Outdoor air pollution is a significant hazard for children with conditions such as asthma, and there is evidence that it may also reduce lung function.

(2) Maryland has made significant progress in reducing childhood lead exposure. Lead exposure can lead to permanent neurological impairment in young children.

- Testing for young children (0 – 72 months) increased statewide from 13.2 percent in 1996 (59,700 children) to 22.2 percent in 2006 (103,000 children).
- The number of children statewide with blood lead levels greater than 10 micrograms/decileter has declined steadily from 17.2 percent in 1995 to 1.2 percent in 2006.

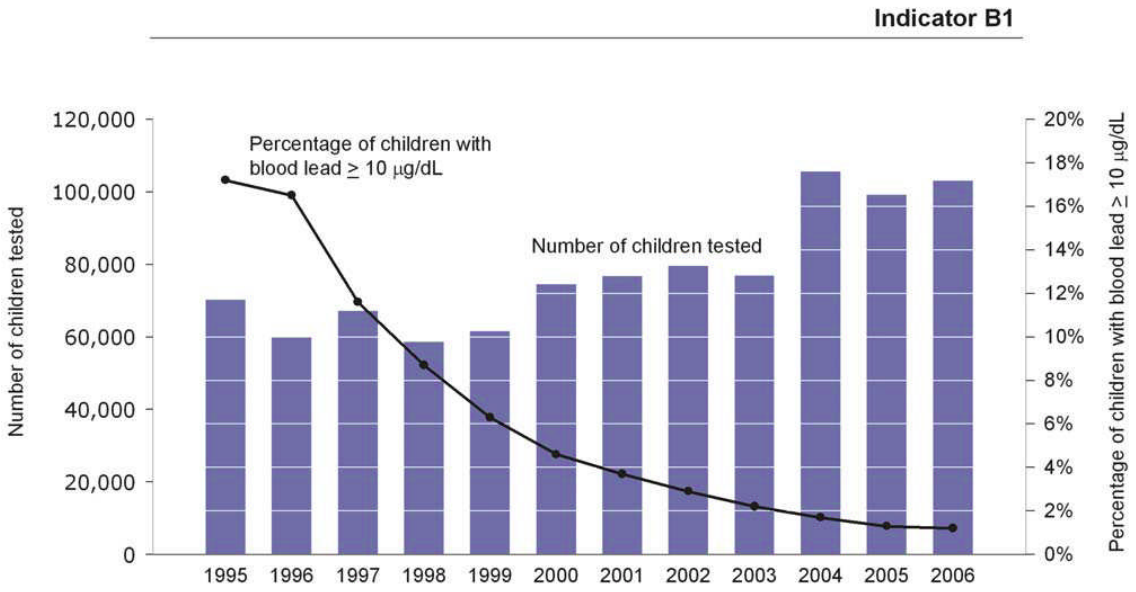

Figure 2. Indicator B1. Percentage of Maryland children 0 - 72 months of age tested for lead and percentage with blood lead levels ≥ 10 micrograms per decilieter (chart is for the period 1995 – 2006).

The report also identifies at least two significant challenges to ensuring that all of Maryland's children are adequately protected from environmental hazards:

(1) *Disparities and Environmental Justice:* Certain groups, based on race, class, or other characteristics, are still subject to a disproportionate share of the burden of environmental contamination or their effects, even when the overall burden has been decreasing. For example, the percentage of children with elevated blood lead levels (≥ 10 micrograms/decileter) is significantly higher for children in families with lower total household incomes (Figure 3).

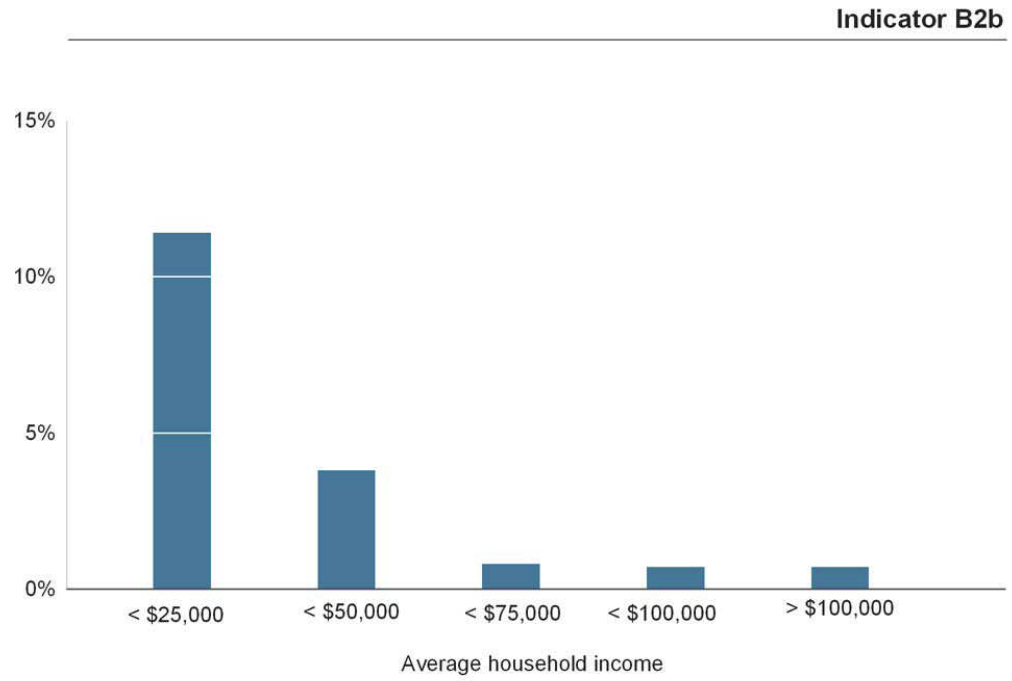

Figure 3. Percentage of Maryland children 0 – 72 months with elevated blood lead level (≥ 10 micrograms/deciliter) as a function of household income, 2002 - 2004.

- *Limitations in Surveillance and Knowledge:* There are significant limits in both our understanding of and in the data available to evaluate the risks of a number of potentially significant environmental exposures, including pesticides, endocrine disruptors, pharmaceuticals and personal care products, chemical residues in

foods such as fish, and the built environment. For example, there are some limited data available on contaminants in fish (Figure 4) but no data on contaminants in children.

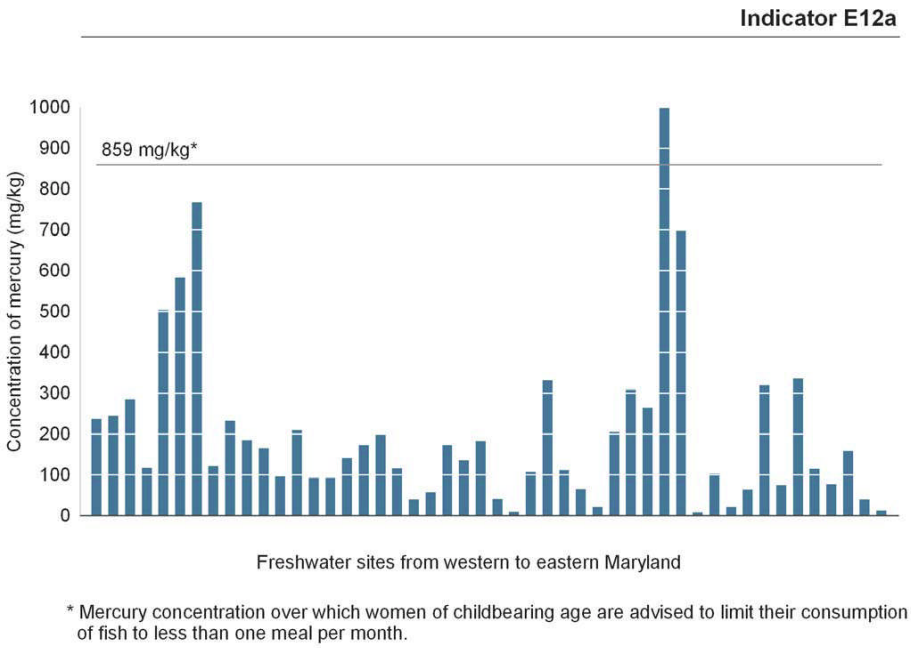

Figure 4. Average mercury concentration in black bass from 48 freshwater sites in Maryland, 1999 – 2005.

Conclusion

The *Maryland's Children and the Environment* report serves as an important first step toward helping the public, policy makers, public health officials, and the research community to establish benchmarks for progress in improving the environment to benefit the health of Maryland's children. Two important challenges are identified in the report: (1) the unequally distributed burden of environmental exposures and disease; and (2) the need to strengthen existing surveillance systems and expand the types of data collected to meet new and emerging environmental hazards.

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